Work + learning: unpacking the agglomerated use of pedagogical terms

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Abstract

Purpose – The association of work and learning has been well established for many years. However, some of the terms used to describe the various pedagogies related to work and learning have been used interchangeably, with many lacking definitional clarity and scope. These include work-related learning (WRL), work-based learning (WBL), workplace learning (WPL) and work-integrated learning (WIL). This agglomerating approach to usage has resulted in pedagogical confusion and what some theorists call a "problematization" for the field, resulting in undermining shared understanding and potential benefit. The purpose of this conceptual paper is an attempt to unpack the meaning and application of some of the key pedagogical terms used in the applied field of work + learning theory and practice.
Design/methodology/approach – Conceptual modelling and qualitative descriptions of each pedagogy.
Findings – Many of the work + learning pedagogies do overlap and cohere but attempts to create umbrella terms, which apply to all theories and approaches, are misguided; definitional clarity with the different modes of practice is required for sustainable educational outcomes.
Originality/value – A proto-theoretical model, along with a breakdown of distinguishing features of each term as well as their source in the published literature, has been developed to improve clarity and aid the future praxis of educators.

Keywords Work, Learning, Co-operative education, Work-based learning, Work-integrated learning
Paper type Conceptual paper

1. Introduction

Recognition that work is associated with learning has been almost universally accepted. Indeed, educational programs which support such an association have been implemented in many countries, and governmental agencies and universities have endowed this fundamental recognition. The prevailing view has been that work experience and work environments, despite the challenges they pose as sites of knowledge transfer (Choy and Billet, 2013), can serve as valuable sources of formal, informal and non-formal learning. For example, with our emphasis added, Clarke and Copeland (2003, p. 234) observed that "workplaces can be *rich learning environments*", and Tam and Gray (2016, p. 19) emphasised that "learning for employees is increasingly regarded as a requirement *at* work".

An overarching theme associated with work and learning therefore is "co-operative education", informing and guiding the discussion around integration of work, learning and research (e.g. Fleming and Zegwaard, 2018). Typically, co-operative education means the partnering, collaborating and co-producing of knowledge or products when educational institutions work together with organisations and communities for shared

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benefit (Haddara and Skanes, 2007). Such a trend relates to schools and universities going beyond their traditional educational and research mandates to embrace innovation and make positive social change.

The ubiquity of discourse in the space between work and learning has resulted in a plethora of theories and pedagogies used to describe this association. These include the following: (1) work-related learning (WRL), also called work-oriented learning (WOL); (2) work-based learning (WBL); (3) workplace learning (WPL); (4) work-applied learning (WAL); (5) work-based training (WBT); (6) work-integrated learning (WIL); (7) workplace-based learning (WPBL) and (8) work-based education (WBE). However, terms associated with work and learning have, after more than 20 years of application, been agglomerated or crowded into a dense cluster of concepts and understandings, many of which do not fully cohere. This has been exacerbated by the rapidly changing nature of work and education in more recent times. Other terms, such as community-based learning (Arantes do Amaral, 2018), practice-based learning (Anvik *et al.*, 2020), service learning (Stoecker, 2016), vocational education and training (VET) (Hämäläinen and Cattaneo, 2015), active learning in the workplace (Paré and Le Maistre, 2006) and the flipped classroom (Hew and Lo, 2018), could also relate to this "agglomeration" but are outside the scope of this paper to avoid further crowding the discussion.

Several problematic factors have emerged as a result of this agglomerating force to cohere pedagogies, including the following:

(1) The use of one term to *mean something else*, for example Scholtz's (2020) use of WPBL to severally mean WIL, co-operative education, experiential learning and internships;

(2) The *interchangeability* of terms, for example Tomlinson's (2004) early use of WBL, WRL and WBT to describe the same phenomenon;

(3) The *absorption* of one general term into another more specific one, for example Cameron *et al.* (2019, p. 83) who say "co-operative education. . .is a form of work-integrated learning" when the reverse is more typical and

(4) The *evolution* of terminology when meanings *develop* according to different national contexts and jurisdictions and different institutions of higher education, for example in the European context (Rouvrais *et al.*, 2020).

The current situation has thus become what Allan (2015, p. 1) calls "problematized", but his solution of referring to these pedagogies collectively as "work learning" is unsatisfying. The reason why we propose that Allan's solution is unsatisfying is that it does not enable a way to address the implications and consequences of the problem. This is especially relevant during a time of arguably unprecedented change in tertiary education marked by significantly different pedagogical assumptions, funding models and market demographics and needs (Altbach *et al.*, 2019).

Given the importance now attached to learning at, through and as a consequence of work by governments, educational institutions and other organisations, it is necessary to unpack (and where possible isolate) terms to establish a base upon which to advance understanding. This might constitute a "first step in establishing a common language" (Nixon *et al.*, 2006, pp. 3–4). Where terms overlap, contradict or are duplicated or disputed, an identification of inconsistency needs to take place for more informed discourse. For those working in this educational space, it is important to at least attempt conceptual clarity, hence the purpose of the present study.

For accuracy, we define "work" in the most inclusive possible terms to not only mean one's "job" or work "role" but also that innate human expression of effort, activity and energy given to tasks that contribute to the overall social and economic welfare of communities and

environments from which personal meaning and benefit are derived; and "work environments" to mean workplaces, work spaces and domains of practice where such an effort and activity occur (Fergusson *et al.*, 2019b). By "learning", we not only mean the effect of experience on behaviour but also the effect of reflection on experience, specifically as it relates to experience in work environments. Thus, "learning environments" are those places, spaces and domains where learning about work routinely or non-routinely takes place. By "pedagogy", we simply mean the application of various theories and practices of learning and teaching.

2. Pedagogical terms

Work-oriented pedagogies are deeply embedded in theories of learning from experience and encourage the learner to develop a process of reflective action as originally proposed by Kolb's experiential learning model (1984). According to Ferns *et al.* (2014, p. 1), experiential learning "finds its roots in the philosophy of Dewey who argued for the worth of well-structured experience as being a valuable and rich source of learning". Experiential learning, as it relates to work and work environments, encourages learners to reflect on their normal work experiences through self-diagnostic instruments, work-based projects, research projects or journals. Irrespective of the method, Cunliffe and Easterby-Smith (2017, p. 31) argue that "the key to effective experiential learning is an ability to reflect upon our actions". As we will see in the following pedagogical descriptions, experience and reflection are common features of most work-oriented approaches for learning, a topic discussed elsewhere by these authors in relation to work-based research (Fergusson *et al.*, 2019a).

As an organising schematic for this discussion, we present a proto-theoretical model of work and learning in Figure 1. It shows that pedagogies designed to associate work with learning are co-operative in nature and can be generally referred to as WRL or WOL, which

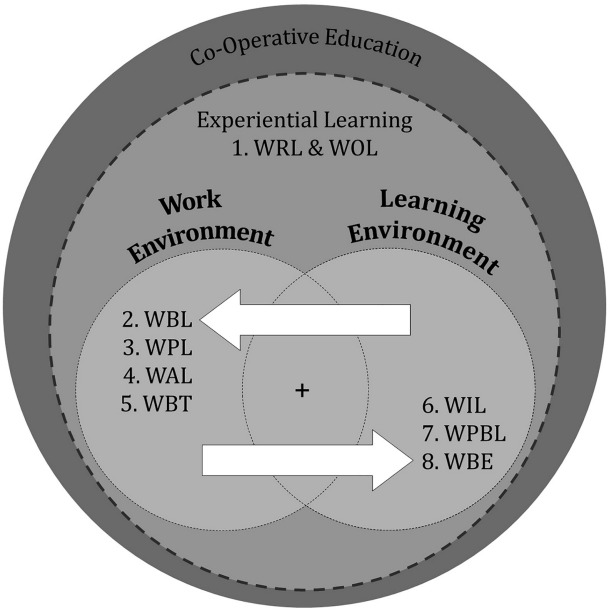

Figure 1.
Proto-theoretical model of work + learning pedagogies in relation to co-operative education

have their foundations in and can be equated to experiential learning. Of the other seven work + learning pedagogies listed below, four are located principally in work environments and integrate learning into the environment, and three are located principally in learning environments because they integrate work into learning-focused curricula.

We recognise that pedagogues use different terms to explain the relationship of work and learning and may define these terms severally; thus, we acknowledge there is no one right or universal definition for each term. Our goal is rather to unpack and organise terms in order to make sense of the pedagogical territory. In the following eight pedagogical descriptions, we italicise key phrases to emphasise distinguishing features.

2.1 Work-related learning

WRL is a higher order conceptualisation of the work + learning association and pertains *generically to all learning that is related to work*, a conceptualisation endorsed by Janke *et al.* (2015). Brooks and Everett (2008) had earlier referred to this type of learning as "work-oriented learning"; more recently, it has more inclusively been referred to as "cooperation in work-oriented learning" (Houston *et al.*, 2016).

However, in the United Kingdom, the Department for Education and Skills (2006, p. 6) had earlier defined WRL generically, but with a far narrower application to mean the "planned activity that uses *the context of work to develop knowledge, skills and understanding useful in work*, including learning through the experience of work, learning about work and working practices and learning the skills for work" as specifically applied to "young people". According to the Department, the aims of WRL include the following: developing employability skills of young people; providing young people with opportunities to "learn by doing" and to learn from experts; increasing commitment to learning, motivation and self-confidence of students and encouraging young people to stay in education and to develop positive attitudes to lifelong learning.

Vähäsantanen *et al.* (2017) and Taylor *et al.* (2015a, b) have adopted the term WRL to refer to *agency* (such as lifelong learning and professional identity), but in these cases, the term refers to development of "professional agency" and the "transformation of work practices" (Vähäsantanen *et al.*, 2017, p. 253). Thus, "learning in and through work is not only about the acquisition of practical knowledge and skills; it also entails the processes of identity construction and the subjectivity of workers within contemporary organisations" (Taylor *et al.*, 2015a, b, p. 816). In our proto-theoretical model, WRL is a term used to encompass all conceptualisations of work + learning and is thus identified more broadly with experiential learning.

2.2 Work-based learning

The term WBL has been ubiquitously applied for many years and often serves as the default perspective for any learning associated with work. However, WBL specifically relates to learning which takes place in a work environment or context; in other words not specifically in a workplace. Atkinson (2016) states WBL "is learning that occurs *in a work environment*, through participation in work practice and process", and Ball and Manwaring (2010, p. 4) point out that WBL "uses the immediacy of *the work context* to provide practice and to encourage reflection on real issues leading to meaningful[ly] applicable learning".

Ball and Manwaring include the following in their definition of WBL: professionals use their *work context as a key component of their learning* to participate in higher education programs deliberately planned to integrate learning and practice and to undertake

courses that are credited towards a higher degree award. Thus, according to Costley and Lester (2012, p. 259), WBL "sits in the university as a *transdisciplinary* field in its own right, rather than as a mode of learning within a specific area of study". Costley and Armsby (2007, p. 22) had earlier referred to WBL as a "mode of study" rather than an academic discipline.

According to Ball and Manwaring, WBL does not include block placements, internships, evening classes, day releases or block releases *which are not directly linked to the work context*. From this we conclude that, despite being advocated from within a higher education context, WBL is centred on, and positioned centrally in, a work environment; as Helyer (2015, p. 18) says, WBL focuses on "the learning that naturally occurs *at work*, and emphasise[s] that all levels of employee are work-based learners". Hence, one of the key features of WBL is its openness for recognising prior experiential WBL (Lamanski *et al.*, 2010) and is therefore organised around work environments not classrooms (Raven, 2014). Underpinning WBL is "a set of developmental philosophies that can be traced back at least as far as Dewey's work in the early part of the twentieth century. More specific influences come from reflective practice, action learning and action research" (Costley and Lester, 2012, p. 259).

Pedagogues have assigned the following features to WBL: it always employs reflective practice (Helyer, 2015; Jones, 2013); it seeks to recognise the "knowledge and abilities that come about through the three spheres of work, the academic and the personal" (Armsby *et al.*, 2006, p. 370); it is always learner-managed learning rather than academic-managed learning (Attenborough *et al.*, 2019) and "different models [of WBL can be] offered that meet the needs of many people who work" (Costley and Armsby, 2007, p. 23). For example, a recent development within WBL is "work-based mobile learning" (WBML), which embraces "the processes of coming to know and of being able to operate successfully in, and across, new and ever changing contexts, including learning for, at and through work by means of mobile devices" (Pimmer and Pachler, 2014, p. 194). In our proto-theoretical model, WBL seeks to integrate learning, generally through higher education, into the work environment. In Australia, Canada and New Zealand, WBL has been usurped by (and, as a consequence, is now sometimes indistinguishable from) WIL, as will be discussed below.

2.3 Workplace learning

Allan (2015) has proposed that WPL is a subset of WBL and that WBL is a subset of WRL, a view consistent with our proto-theoretical model. The features of WPL are almost always the same as WBL, but the emphasis of learning in WPL is on a specific workplace, not on "work" itself more generally. According to Kyndt *et al.* (2016, p. 436), WPL therefore refers to "the development of knowledge, skills and attitudes necessary for improving the quality and progress of work *in situations at or near the workplace*". Tam and Gray (2016, p. 672) go further to suggest that "workplace learning strategies. . .contribute to future firm growth, competitiveness and sustainability".

In keeping with the principles of WBL, issues associated with reflective practice and action learning and research, what Elkjaer and Nickelsen (2016, p. 266) call a "professional's actions at work", are as common in WPL as they are in WBL. The defining feature separating WPL from WBL is WPL's concern with the notion of "place" of work as opposed to the more general recognition by WBL of work taking place in "space". Place has specific physical attributes which are bounded and has played a dominant role in defining where work occurs and how it is defined. "Space", on the other hand, as described in the seminal work of Lefebvre (1991), is unbounded by physical location and able to take on the more fluid characteristics of perceived, conceived and lived spaces of work.

Given the "close interaction between *employees' learning processes* and *their workplace conditions*" (Tam and Gray, 2016, p. 683), much of WPL focuses on getting approvals for the right to learn, managing internal politics and hidden agendas, navigating power relations and organisational priorities and understanding organisational structures (O'Leary and Hunt, 2016; Tam and Gray, 2016). "Navigating the political landscape", specifically in relation to conducting successful workplace research, is viewed as imperative in WPL (O'Leary and Hunt, 2016, p. 28).

Anvik *et al.* (2020) build upon the WPL theory to posit the application of "practice-based learning", in their case to a nursing home environment, a process which calls upon "an innovative potential of practices and problem-solving processes in complex, dynamic work contexts". Such a view of WPL was expressed earlier by Darsø and Høyrup (2012). In keeping with WBL, in our proto-theoretical model WPL too seeks to integrate learning through higher education into the work environment.

2.4 Work-applied learning

WAL has its genesis in WBL but has been developed specifically in the context of change management for businesses and managers by extending WBL from individuals and teams to include entire organisations (Holyoake, 2017). Abraham (2015) introduced WAL to "bring about organisational change through a fusion of *action research and action learning*. Action research and action learning are similar to using group dynamics to shed light on problems with a view to action. Abraham maintains that "action learning is a subset of action research and that it is the addition of the researcher and the cyclical nature of the action research as systematic enquiry [carried out by the work-based organisational group], which is critical to bring about change in an organization" (Garnett *et al.*, 2016, p. 59). (The term "work-applied management" [WAM] has also been used in the literature to describe the WAL phenomenon, but it has typically not been distinguished from WAL. For example, Wall (2019) aligns WBL and WAL with learning in management.)

A typical WAL program consists of a number of action research cycles, with each cycle consisting of action research group meetings, knowledge workshops, work-based applications and testing of knowledge, joint observations and reflections and monitoring and evaluation (Holyoake, 2017). Such a repeating process is said to develop managers into "practitioner researchers" (Zuber-Skerritt and Abraham, 2017). In keeping with both WBL and WPL, in our proto-theoretical model, WAL seeks to integrate learning through higher education and WBT into the work environment. Moreover, "students" in WBL, WPL and WAL are "researching practitioners" not undergraduates.

2.5 Work-based training

The term WBT appears to have been introduced into the literature about 20 years ago (Purcell *et al.*, 2000) but has failed to capture the attention of many pedagogues. Tomlinson (2004) used, but did not define, the term; Brooks and Everett (2008) went on to define it as "job-based learning" (or "job-based training") and associated it with "lifelong learning".

Purcell *et al.* (2000) suggested that WBT is the design and delivery of a *training program within a workplace context*, primarily for staff development. WBT is thus a combination of guided theory-based learning and employer guided on the job and off the job practice-based learning through training. Ellström and Ellström (2014) present WBT as essentially the same as VET, with its emphasis on competency development, and Matovu *et al.* (2013) suggest it to be a viable strategy for building workforce capacity, particularly capacity in trainees. In our proto-theoretical model, WBT is the integration of learning through training into work.

2.6 Work-integrated learning

WIL has become one of the dominant pedagogical paradigms of higher education (Rampersad, 2015), especially in the Australian higher education and national policy contexts (e.g. Universities Australia, 2015). WIL differs from both WBL and WPL because it emphasises learning experiences of work *via placements, practicums and internships and their integration into the university curriculum* and because of its location "within an intentional discipline-centred curriculum" and focus on career pathways (Ferns *et al.*, 2014, p. 2). Essentially, the flow of knowledge and centre of gravity in WIL is the opposite to WBL, WPL, WAL and WBT in that it is curriculum based and focused on ways in which education is able to provide experiential learning opportunities. These are often within disciplinary contexts and determined by competency frameworks associated with particular professions. According to Universities Australia *et al.* (2015, p. 1),

> WIL is an umbrella term for a range of approaches and strategies that *integrate theory with the practice of work within a purposefully designed curriculum*. Specifically, WIL is aimed at improving the *employability of graduates* by giving them valuable *practical experience,* which is directly related to *courses being studied at university*. WIL also improves the transition from university to work and productivity outcomes for the employer and the economy.

As Atkinson (2016, p. 1) has pointed out, "work-integrated learning, with its emphasis on intentionally integrating students' experiences in a work setting *into their educational programs*, has been evolving and growing in prominence"; thus, WIL is used to enhance student development and employability by connecting "students and institutions with employers and, in doing so, can contribute value for those employers" (Drewery *et al.*, 2020, p. 275). According to these authors, WIL develops what they call a talent pipeline "through which organizations identify, attract, develop, and retain talented people" and thus "employers participate in WIL to attract talented students" (p. 275). More importantly for the Australian, Canadian and New Zealand contexts, Atkinson (2016) rightly makes the same distinction between WBL and WIL as we make in this paper.

In the context of university-business cooperation (UBC), Rampersad (2015, pp. 204–205) somewhat creatively weaves together what she calls "three forms of WIL": cooperative education, in which universities and businesses enter into an agreement to hire students through job placements; WBL, which offers flexibility both in entry and exit from an educational program as well as scope and type of assessment; and WPL, which is based on "the delivery of the course in the workplace", although she does speak about the role of internships and placements in work settings as a distinguishing feature of WIL.

More conventionally is Ferns *et al.*'s (2014, p. 1) conception of WIL, which "is internationally recognized and nationally endorsed as a strategy for ensuring students are exposed to authentic learning experiences [of work] with the opportunity *to apply theoretical concepts to practice-based tasks*, ultimately enhancing graduate employability" and is the term used to "identify the myriad experiences that *engage students in the workplace*".

In our proto-theoretical model of work + learning, WIL therefore seeks to integrate student experiences of work into higher education (usually undergraduate) curricula.

2.7 Workplace-based learning

WPBL is a relatively recent phenomenon and appears infrequently in the published literature on work and learning. The name could intuitively suggest a similarity to WPL (for example, Sajjad and Mahboob, 2015, use the terms interchangeably), but WPBL is more closely aligned to WIL. In fact, Scholtz (2020, p. 25) says WPBL is another term for WIL and equates it to the use of internships. Such a view is reinforced by Ärlemalm-Hagsér (2017, p. 413), when she says that WPBL relates to "the experiences of early childhood student teachers in their encounters with EfS [Education for Sustainability] in their workplace-

based learning experiences *within their higher education course*". Tellingly, Ärlemalm-Hagsér (2017, p. 423) also refers to student teachers having "*visits* to their workplace-based setting".

Nevertheless, some theorists do maintain that WBPL is closely associated with WPL because "workplace-based professionalization" aims to "create a learning environment which allows workers to acquire necessary key competencies *within their workplace*, creating an embedded system of learning and working [and] to ease the path for workers with a vocational training background to *reach higher qualification levels*, therefore opening new opportunities for advancement within their field" (Longmuß and Höhne, 2017, p. 263).

For the purposes of our study, we have determined that WPBL is essentially the same as WIL; therefore in our proto-theoretical model, WPBL seeks to integrate student experiences of work into higher education (usually undergraduate) curricula.

2.8 Work-based education

WBE is essentially WIL and WPBL for upper secondary school apprentices. Bolli and Hof (2018, p. 47) maintain that WBE differs from what they call "school-based education" in terms of role models and peers, in that apprentices look to adult mentors, co-workers and clients whereas school-based students receive feedback from classmates and teachers. In such a conception, "apprentices" differ based on the level of responsibility they face: "While *school-based students* face comparatively little responsibility, *work-based students* interact directly with real clients, handle valuable equipment and products, serve as role models for the younger apprentices, and earn their own money" (Bolli and Hof, 2018, p. 47).

With a focus on the *transition from school to work*, Taylor *et al.* (2015a, b, p. 158) apply the same principles of WBE, but in their case it is "an effective strategy for enabling at-risk youth to *re-engage with learning* and to make more *successful transitions to the workplace* and to further education". Thus, for them, WBE refers to "learning experiences for high-school students that include workplace mentoring, paid work experience, instruction in workplace competencies, and co-operative education. . .and involves youth[s] gaining credits toward graduation by *working in a placement* in the community where supervision is a *co-operative venture* involving a supervisor from the school and a supervisor in the workplace" (p. 159).

In our proto-theoretical model of work and learning, WBE therefore seeks to integrate student experiences of work into upper secondary curricula through collaborative placement. Based on these perspectives and definitions, Tables 1 and 2 present summaries of the distinguishing features of each of the eight pedagogies, with key corresponding citations from noted proponents.

3. Conclusion

This preliminary investigation has sought to identify, define and provide supporting evidence for the eight major work + learning pedagogies, which appear throughout the published literature. Supporting evidence has been sourced from some of the world's most important thought leaders associated with each pedagogy (e.g. Costley, Lester, Helyer and Garnett for WBL, Abraham and Garnett for WAL and Pretti and Zegwaard for WIL). We have also identified the co-operative territory of these pedagogies in the wider worlds of work and experiential learning as they relate to the work of Dewey.

In so doing, we have unpacked what has become a confusing agglomeration of educational terms, many of which have been used interchangeably. We have also noted that many of these terms, when applied in different educational settings, work environments and national contexts, have resulted in a variety or meanings, interpretations and applications, further

Type of work + learning	Distinguishing features	Authoritative sources
1. Work-related learning (or work-oriented learning)	(1) Umbrella or generic term to mean any learning related to work	Allan (2015), Janke *et al.* (2015)
	(2) Relates to development of personal and professional agency	Taylor *et al.* (2015a, b), Vähäsantanen *et al.* (2017)
	(3) Incorporates any planned activity that uses work to develop knowledge, skills and understanding	Department for Education and Skills (2006)
	(4) Acknowledges the significance of reflection across all types of learning	Garnett *et al.* (2016)
2. Work-based learning	(1) Transdisciplinary mode of study	Costley and Lester (2012), Costley and Abukari (2015)
	(2) Action learning and action research	Costley and Lester (2012)
	(3) Uses reflective practice	Helyer (2015), Costley and Lester (2012), Jones (2013)
	(4) Recognition of learning (including prior learning) derived from work, higher education and personal experience	Armsby *et al.* (2006), Lamanski *et al.* (2010)
	(5) Learner-managed learning; learner-centric learning	Attenborough *et al.* (2019), Lamanski *et al.* (2010)
	(6) Different educational models designed to meet the needs of working people	Costley and Armsby (2007)
	(7) Centred on work environments, not the classroom	Raven (2014)
3. Workplace learning	(1) Specifically related to workplaces, including their internal politics, alliances and complexities	Elkjaer and Nickelsen (2016)
	(2) Action-based learning; theories of action	Kyndt *et al.* (2016)
	(3) Uses reflective practice	Tam and Gray (2016)
	(4) Develops skills, knowledge and attitudes necessary to improve quality and progress of workplace	O'Leary and Hunt (2016), Tam and Gray (2016)
	(5) Centred on workplaces to enable future organisational growth, competitiveness and sustainability	Tam and Gray (2016)
	(6) Importance of managing organisational politics and power	Anvik *et al.* (2020)
	(7) Close interaction between employees' learning processes and workplace conditions	
	(8) Aligns with "practice-based learning"	
4. Work-applied learning	(1) Focuses on organisational change in a business	Abraham (2015), Garnett *et al.* (2016)
	(2) Specifically linked to action learning (AL) and action research (AR), with emphasis placed on groups	Holyoake (2017) and Zuber-Skerritt and Abraham (2017)
	(3) Encourages use of "knowledge workshops" and reflection	
	(4) Change method for the development of managers (or "practitioner researchers") and teams	
	(5) Cycles of AL and AR include repeated cycles of planning, acting, observing, reflecting, evaluating and validating	
5. Work-based training	(1) Training programs within a workplace context	Tomlinson (2004), Ellström and Ellström (2014)
	(2) Used in workforce capacity building	Matovua *et al.* (2013)
	(3) Job-based learning, equated with a "learning society"	Brooks and Everett (2008)
	(4) Aligns with WBL and work-oriented learning	

Table 1.
Work + learning pedagogies 1–5 and their distinguishing features and authoritative sources

Type of work + learning	Distinguishing features	Authoritative sources
6. Work-integrated learning	(1) Uses reflective practice (2) Based in the classroom but integrates work experience into curricula (3) Seeks to enhance student employability (4) Develops a talent pipeline for companies (5) Trains students to apply theoretical concep to practice-based tasks (6) Uses visits to workplaces, engaged practicums and simulations (7) Discipline-centred curricula focused on career pathways	Rampersad (2015) Drewery *et al.* (2020) Rampersad (2015) Ferns *et al.* (2014)
7. Workplace-based learning	(1) Uses reflective practice (2) Another term for WIL (3) Uses internships and workplace visits, particularly by undergraduate students (4) Develops key competencies in the workplace, so workers can reach higher levels of qualification	Scholtz (2020) Ärlemalm-Hagsér (2017) Longmuß and Höhne (2017)
8. Work-based education	(1) Provides work experiences for upper secondary school students, including apprentices (2) Provides experience through job placements (3) Focuses on the transition from school to work	Bolli and Hof (2018) Taylor *et al.* (2015a, b) Hutchinson *et al.* (2008)

Table 2.
Work + learning pedagogies 6–8 and their distinguishing features and authoritative sources

resulting in confusion and obfuscation. Having now isolated and defined many of the key terms used in the co-operative education space between work and learning, pedagogues should be better able to demarcate their core learning and teaching strategies, as well as design and implement curricula more appropriately aligned to the needs of their students, irrespective of whether learning resides predominantly in the world of work or is situated within an educational institution.

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